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Applicants cancel claims 3, 7, and 10. Claims 1-2, 4-6, 8-9, and 11-12 remain

pending in the application. Applicants amend claims 8 and 12 for proper dependencies, and

amend claims 1-2, 6, and 9 for further clarification and to incorporate features that

correspond to those of claims 3, 7, and 10, respectively. No new matter has been added.

The Examiner objected to the title of the invention for allegedly being not descriptive,

which Applicants amend in accordance with the Examiner's suggestion. Accordingly,

Applicants respectfully request that the Examiner withdraw the objection.

Claims 1-2, 5-6, 8-9, and 12 stand rejected under 35 U.S.C. § 102(e) as being

anticipated by United States Patent No. 6,532,233 to Matsunaga et al.; claims 3-4, 7, and 10-

11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsunaga et al. in

view of "RFC 3376." Applicant amends claims 1-2, 6, and 9 in a good faith effort to further

clarify the invention as distinguished from the cited references, and respectfully traverse the

rejections.

The method described in Matsunaga et al. of suspending a transmission of multicast

packets on routes that require no distribution of the multicast packets is as follows. The

control mechanism described in Matsunaga et al. achieves: (i) a notification of a

subscription/withdrawal request to a multicast router (L3) by utilizing a message of an IGMP

report from an existing receiving terminal; and (ii) the subscription/withdrawal request of the

receiving terminal is transferred to ports other than the port through which the

subscription/withdrawal request is received from the multicast router (L3).

On the other hand, the control mechanism of the claimed invention is applied to a

communication network that includes at least one Layer-2 switch sandwiched between two

Layer-3 switches, as shown in, e.g., FIG. 17.

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The point to note in the case of FIG. 17 is that even if "IGMP JOIN" packets are transmitted from the multicast receiving terminals (receivers) 3-1 and 3-2, they only reach the L3 switches 5-2 and 5-3 and do not reach the further upstream L2 switches. Therefore, the "IGMP SNOOPING" functions equipped in these L2 switches do not operate at all.

To solve the problem, in the claimed invention, a particular function is newly implemented in each of the multicast receiving terminals. According to this particular function, a discrimination packet, other than the above IGMP report message, is transmitted from the multicast receiving terminal to the multicast transmitting terminal so as to teach the L2 switch of the existence of the multicast receiving terminal requesting distribution of the multicast packets under the L2 switch, wherein the discrimination packet includes an IP header and MAC header and wherein the IP source address and MAC source address are an IP address and MAC address of a multicast group to which said multicast receiving terminal (receiver) belongs.

Thus, even assuming, arguendo, that it would have been obvious to one skilled in the art at the time the claimed invention was made to combine Matsunaga et al. and RFC 3376, such a combination would still have failed to disclose or suggest,

> "[a] communication method in a multicast communication network, including at least one Layer-2 switch sandwiched between two Layer-3 switches, for distributing a multicast packet from a multicast transmitting terminal (source) through at least the Layer-2 switch to a plurality of multicast receiving terminals (receivers), comprising:
> forming a receiving terminal discrimination mechanism for discriminating multicast receiving terminals for receiving distribution of said multicast packets by using a discrimination packet, to be transmitted from said multicast receiving terminal to said multicast transmitting terminal, for teaching said Layer-2 switch of the existence of the multicast receiving terminal requesting distribution of said multicast packets under the Layer-2 switch, the discrimination packet includes an IP header and MAC header and wherein the IP source address and MAC source address are an IP address and MAC address of a

multicast group to which said multicast receiving terminal
belongs; and
distributing multicast packets selectively by said
receiving terminal discrimination mechanism only to multicast
receiving terminals requesting distribution of said multicast
packets when there are multicast receiving terminals relating to
such requests under said Layer-2 switches," as recited in claim
1. (Emphasis added)

Accordingly, Applicants respectfully submit that claim 1 is patentable over

Matsunaga et al. and RFC 3376, separately and in combination, for at least the foregoing

reasons. Claims 2, 6, and 9 incorporate features that correspond to those of claim 1 cited

above, and are, therefore, together with claims 4-5, 8, and 11-12 dependent therefrom,

respectively, patentable over Matsunaga et al. for at least the same reasons.

In view of the remarks set forth above, this application is in condition for allowance

which action is respectfully requested. However, if for any reason the Examiner should

consider this application not to be in condition for allowance, the Examiner is respectfully

requested to telephone the undersigned attorney at the number listed below prior to issuing a

further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

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